



Eco-Village Sustainable Framework Overview

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Overview

1. Project Background
2. Eco-Village Concept Plan Values
3. Framework Review
4. Recommendations

Background

- April 25th 2022 Council approved the Eco-Village Conceptual Plan
- Sustainable neighborhood development is the primary goal
- Integration of a sustainable building framework will provide support to staff and the future developer

Eco-Village Values

- First Nations Values and Perspectives
- Natural asset management through landscape integration of design
- Community Spaces
- Recreation and active transportation
- Mixed Housing
- Low-Carbon Resilience (LCR) approach

Sustainability Frameworks

- LEED-Neighborhood Development (ND)
- One Planet Living
- Envision Sustainable Infrastructure Framework
- Living Community Challenge



LEED-Neighborhood Development

LEED-ND: Program Overview

- Informs new neighborhood developments to achieve greater sustainability and climate resilience.
- Framework addresses both the building and landscape
- LEED-ND Plan or LEED-ND Built certification options

LEED-ND: Framework

- Framework credit categories:
 - Smart Location and Linkage
 - Neighborhood pattern and design
 - Green Infrastructure and Buildings
 - Innovation and Design Process
 - Regional Priority Credits

LEED-ND: Pros and Cons

First Nations Perspectives	Landscape integration	Community Gathering Spaces	Recreation and Active transportation	Diversity of housing and services	LCR approach

Pros

- Addresses many of the concept plan values
- Examines building and neighborhood impacts on landscape
- Globally recognized program
- Accredited LEED professionals are widely available

Cons

- Requires additional considerations outside of LEED-ND to ensure project values are met
- More comprehensive registration and certification process, time and money dependent



One Planet Living

One Planet Living: Program Overview

- Developed by a non-profit consultancy firm Bioregional
- Not a certification or accreditation program
- Uses 10 principles that assist users to create their own 'One Planet Living' community

One Planet Living: Framework

1. Action Plan
2. Optional: Peer Review
3. Implementation
4. Monitoring
5. Reporting

 Health and happiness	Encouraging active, social, meaningful lives to promote good health and wellbeing
 Equity and local economy	Creating safe, equitable places to live and work which support local prosperity and international fair trade
 Culture and community	Nurturing local identity and heritage, empowering communities and promoting a culture of sustainable living
 Land and nature	Protecting and restoring land for the benefit of people and wildlife
 Sustainable water	Using water efficiently, protecting local water resources and reducing flooding and drought
 Local and sustainable food	Promoting sustainable humane farming and healthy diets high in local, seasonal organic food and vegetable protein
 Travel and transport	Reducing the need to travel, encouraging walking, cycling and low carbon transport
 Materials and products	Using materials from sustainable sources and promoting products which help people reduce consumption
 Zero waste	Reducing consumption, reusing and recycling to achieve zero waste and zero pollution
 Zero carbon energy	Making buildings and manufacturing energy efficient and supplying all energy with renewables

One Planet Living: Pros and Cons

First Nations Perspectives	Landscape integration	Community Gathering Spaces	Recreation and Active transportation	Diversity of housing and services	LCR approach

Pros

- Includes implementation, reporting and indicators as part of framework process
- Goes beyond building and landscape sustainability
- Framework style is more versatile
- Lower cost

Cons

- 10 principles are not prescriptive
- Still require additional work outside of framework to address missing project values
- Based out of UK and may have difficulty connecting with consultancy
- Limited Canadian references

Envision Sustainable Infrastructure Framework


Envision: Program Overview

- Can be used as a self-assessment tool to build sustainable and resilient infrastructure
- Decision-making guide, not prescriptive
- Looks at short and long term sustainability of physical infrastructure
 - “Are we doing the project right?” but also, “Are we doing the right project?”

Envision: Framework

- 64 sustainability and resilient indicators
- Can be used in conjunction with other rating systems
- Addresses entire lifecycle of the project



			Improved	Enhanced	Superior	Conserving	Restorative	Maximum Points
 Quality of Life	Wellbeing	QL1.1 Improve Community Quality of Life	2	5	10	20	26	200
		QL1.2 Enhance Public Health & Safety	2	7	12	16	20	
		QL1.3 Improve Construction Safety	2	5	10	14	—	
		QL1.4 Minimize Noise & Vibration	1	3	6	10	12	
		QL1.5 Minimize Light Pollution	1	3	6	10	12	
		QL1.6 Minimize Construction Impacts	1	2	4	8	—	
	Mobility	QL2.1 Improve Community Mobility	1	3	7	11	14	
		QL2.2 Encourage Sustainable Transportation	—	5	8	12	16	
		QL2.3 Improve Access & Wayfinding	1	5	9	14	—	
	Community	QL3.1 Advance Equity & Social Justice	3	6	10	14	18	
		QL3.2 Preserve Historic & Cultural Resources	—	2	7	12	18	
		QL3.3 Enhance Views & Local Character	1	3	7	11	14	
		QL3.4 Enhance Public Space & Amenities	1	3	7	11	14	

Envision: Pros and Cons

First Nations Perspectives	Landscape integration	Community Gathering Spaces	Recreation and Active transportation	Diversity of housing and services	LCR approach

Pros

- Tiered credit categories
- Whole life consideration for infrastructure (design, construction, O&M)
- 4 Pillars approach to the framework
- Addresses a gap in sustainable neighborhood development

Cons

- Can't be used exclusively, needs to be paired up with other frameworks
- Primary focus on big infrastructure projects
- Examples of framework application is at the public utility and infrastructure scale.



Living Community Challenge

Living Community: Program Overview

- While not accepting registrations at this time, the framework can be used as a guide and reference for development.

Living Community: Framework

- Consists of seven(7) performance areas, or Petals: Place, Water, Energy, Health and Happiness, Materials, Equity, and Beauty
- Four stages of becoming a Living Community:
 - Registration
 - Vision and Master Plan
 - Implementation
 - Certification

Living Challenge: Pros and Cons

First Nations Perspectives	Landscape integration	Community Gathering Spaces	Recreation and Active transportation	Diversity of housing and services	LCR approach

Pros

- 4 Pillars approach to the framework
- Provides flexibility and customization of the framework to a project
- Framework suggests the integration of a Vision or Master Plan alongside the certification

Cons

- Cannot achieve certification at this time
- Could be more rigorous than financially or logistically feasible for this project
- Limited Canadian examples, and possibly expertise

Recommendations

THAT Council direct the use of 1) the LEED-Neighborhood Development (ND) for building and neighborhood design, and 2) the Envision Sustainable Infrastructure Framework for the infrastructure design, in the development of the Eco-Village.